In addition the DCA wants the trip generating factor for motels included in the Master Plan and a better definition for "high intensity" in Action Item 4.1.8.

Staff response and recommendation: Monroe County, the DCA and the Florida Department of Transportation's objectives in developing the HCP were to allow limited additional development activities while ensuring that future development does not have a negative impact on covered species habitat, to limit the increase of human related mortality of the Key deer and Lower Keys marsh rabbit to a level that would make Quasi Extinction unlikely, and to keep secondary impacts to the marsh rabbit to current levels or below. (Page 1, Executive Summary, Habitat Conservation Plan for Florida Key Deer and other Protected Species on Big Pine Key and No Name Key, Monroe County Florida, revised January 2004.)

Extensive studies were undertaken, at considerable expense, to prepare the HCP, including identifying relative impacts and developing minimization and mitigation actions. The data and analysis requested by the DCA is already complete within the HCP. The HCP was a requirement in Policy 301.7.3 of the 2010 Comprehensive Plan to address the need for traffic improvements to US #1. The "H" values for every parcel on the islands used in the HCP and the Plan consider both loss of habitat and potential take of the listed species due to traffic incidents. The table values in Table 2.1adjust the impacts for various trip generation characteristics of the different commercial uses.

The DCA cooperated in the development of the HCP, approved the HCP, supported the submittal of the application and surely now will support the implementation of the HCP.

In addition, Action Item 4.2.9 limits new commercial uses to medium and low intensity uses with corresponding limitations on trip generation. This restriction replaces those in Policy 103.1.1 of the Comprehensive Plan.

• Staff recommends no change in the plan amendment.

Action Item 4.1.8 is in response to the non-residential rate of growth ordinance (NROGO); Sec. 124.2(b) provides a way to permit certain land uses if appropriate areas are designated in the community master plan. The reason these items are prohibited from receiving permits without this designation is to protect community character. During the Big Pine Key and No Name Key planning process it was determined that very high intensity uses should not be permitted in the planning area.

- Staff recommends the following amendment to (1) to clarify the intent of Action ltem 4.2.9:
  - (1) Commercial retail high intensity uses that generate more than one hundred and fifty (150) trips per one thousand square feet of floor area.

New transient residential units are prohibited in the Big Pine Key and No Name Key Master Plan in Action Item 3.1.4. However, staff recommends amending the Table 2.1 to

include the multiplier for hotel and motel rooms, since there is no down-side to including this language.

• Amend table 2.1 as follows:

Land Use Average daily trip generation H Multiplier

Hotel/motel 7.9 0.8 per room

5. <u>DCA:</u> A clear map delineating boundaries of the Community Center Overlay and implementation guidelines should be included in the Master Plan.

<u>Staff response and recommendations</u>: Amend Action Item 4.1.5 to clarify the location of the community center overlay and a map be included in the Master Plan identifying the boundaries of the Community Center Overlay.

• Amend Action Item 4.1.5 as follows:

Action 4.1.5: Create a Community Center Overlay on Big Pine Key pursuant to Policy 105.2.15 of the Comprehensive Plan where Tier III infill and incentives for redevelopment will be encouraged. The Community Center Overlay shall be located at the intersection of US#1 and Key Deer Boulevard, Wilder Road and Chapman Street; and be limited to the geographical area designated in figure 2.4. Land Development Regulations for design of the Community Center Overlay shall be as follows:

- a. Small individual buildings, of 2,500 square feet or less, fronting both US #1 and Key Deer Boulevard will be encouraged, with commercial uses on the lower floor and employee housing on the upper floor.
- b. The FAR in the Overlay District may be increased to .40 to foster a coherent more dense streetscape.
- c. Parking lots in front of the commercial uses are discouraged, although on street parking may occur where appropriate.
- d. <u>Building front setbacks are reduced with the majority of the building façade on the required building line.</u>
- e. Arcades, colonnades, open porches, canopies, awnings, and balconies may be permitted to encroach on the frontage.

# FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS OBJECTIONS, RECOMMENDATIONS AND COMMENTS (ORC) REPORT



STATE OF FLORIDA

#### COMMUNITY DEPARTMENT OF

"Dedicated to making florida a better place to call home" THADDEUS L. COHEN, AIA

JEB BUSH Governor

June 28, 2004

Secretary

The Honorable Murray Nelson Mayor, Monroe County **Board of County Commissioners** 530 Whitehead Street Key West, Florida 33040

Dear Mayor Nelson:

The Department of Community Affairs has completed its review of the proposed Comprehensive Plan Amendment for Monroe County (DCA No. 04-1), which was received on March 29, 2004. Copies of the proposed amendment have been distributed to appropriate state, regional and local agencies for their review, and their comments are enclosed.

The Department has reviewed the comprehensive plan amendment for consistency with Rule 9J-5, Florida Administrative Code (F.A.C) and Chapter 163, Part II, Florida Statutes (F.S.) and has prepared the attached Objections, Recommendations, and Comments (ORC) Report which outlines our findings concerning the comprehensive plan amendment. The Department has raised concerns with regard to the proposed deletion of traffic policies, the need to prohibit the designation of land from one tier to another, the adoption and designation of the community center overlay and the need for stronger language clarifying that the Liveable CommuniKeys Plan has been adopted into the comprehensive plan.

For your assistance, we have attached procedures for final adoption and transmittal of the comprehensive plan amendment. If you have any questions, please call Rebecca Jetton, Area Critical State Concern Administrator, at (850) 922-1766.

Sincerely yours,

Charles Gauthier, AICP

Chief of Comprehensive Planning

CG/rjs

Enclosures:

Objections, Recommendations and Comments Report

Review Agency Comments

cc: K. Marlene Conaway, Director, Planning & Environmental Resources Carolyn A. Dekle, Executive Director, South Florida Regional Planning Council

• TALLAHASSEE, FLORIDA 32399-2100 2555 SHUMARD OAK BOULEVARD FAX: 850.921.0781/Suncom 291.0781 Phone: 850.488.8466/Suncom 278.8466

Internet address: http://www.dca.state.fl.us

#### TRANSMITTAL PROCEDURES

Upon receipt of this letter, Monroe County has 60 days in which to adopt, adopt with changes, or determine that the County will not adopt the proposed amendment. The process for adoption of local government comprehensive plan amendments is outlined in s. 163.3184, Florida Statutes (F.S.), and Rule 9J-11.011, F.A.C. The County must ensure that all ordinances adopting comprehensive plan amendments are consistent with the provisions of Chapter 163.3189(2)(a), F.S.

Within ten working days of the date of adoption, the County must submit the following to the Department:

Three copies of the adopted comprehensive plan amendments;

A listing of additional changes not previously reviewed;

A listing of findings by the local governing body, if any, which were not included in the ordinance; and

A statement indicating the relationship of the additional changes to the Department's Objections, Recommendations and Comments Report.

The above amendment and documentation are required for the Department to conduct a compliance review, make a compliance determination and issue the appropriate notice of intent.

In order to expedite the regional planning council's review of the amendments, and pursuant to Rule 9J-11.011(5), F.A.C., please provide a copy of the adopted amendment directly to the Executive Director of the South Florida Regional Planning Council.

Please be advised that Section 163.3184(8)(c), Florida Statutes, requires the Department to provide a courtesy information statement regarding the Department's Notice of Intent to citizens who furnish their names and addresses at the local government's plan amendment transmittal (proposed) or adoption hearings. In order to provide this courtesy information statement, local governments are required by law to furnish the names and addresses of the citizens requesting this information to the Department. Please provide these required names and addresses to the Department when you transmit your adopted amendment package for compliance review. In the event there are no citizens requesting this information, please inform us of this as well. For efficiency, we encourage that the information sheet be provided in electronic format.

#### INTRODUCTION

The following objections, recommendations and comments are based upon the Department's review of Monroe County 04-1 proposed amendment to their comprehensive plan pursuant to s. 163.3184, Florida Statutes (F.S.).

The objections relate to specific requirements of relevant portions of Chapter 9J-5, Florida Administrative Code (F.A.C.), and Chapter 163, Part II, F.S. Each objection includes a recommendation of one approach that might be taken to address the cited objection. Other approaches may be more suitable in specific situations. Some of these objections may have initially been raised by one of the other external review agencies. If there is a difference between the Department's objection and the external agency advisory objection or comment, the Department's objection would take precedence.

Each of these objections must be addressed by the County and corrected when the amendment is resubmitted for our compliance review. Objections that are not addressed may result in a determination that the amendment is not in compliance. The Department may have raised an objection regarding missing data and analysis items, which the local government considers not applicable to its amendment. If that is the case, a statement justifying its non-applicability pursuant to Rule 9J-5.002(2), F.A.C., must be submitted. The Department will make a determination on the non-applicability of the requirement, and if the justification is sufficient, the objection will be considered addressed.

The comments that follow the objections and recommendations section are advisory in nature. Comments will not form bases of a determination of non-compliance. They are included to call attention to items raised by our reviewers. The comments can be substantive, concerning planning principles, methodology or logic, as well as editorial in nature dealing with grammar, organization, mapping, and reader comprehension.

Appended to the back of the Department's report are the comment letters from the other state review agencies and other agencies, organizations and individuals. These comments are advisory to the Department and may not form bases of Departmental objections unless they appear under the "Objections" heading in this report.

# OBJECTIONS, RECOMMENDATIONS AND COMMENTS FOR MONROE COUNTY

#### **AMENDMENT 04-1**

The Department has completed its review of the proposed amendments to the Monroe County Comprehensive Plan (DCA No. 04-1). Monroe County is proposing four future land use changes and twenty text amendments. One text amendment allows the Monroe County Land Authority to purchase land that has not been waiting for a building allocation and the rest implement a Livable Communikeys Master Plan (LCP) for Big Pine and No Name Keys. The Livable Communikeys Plan incorporates the tenets of the Habitat Conservation Plan (HCP) submitted to U.S. Fish & Wildlife.

The Department has the following objections:

Objection 1: Policy 101.20.2 attempts to incorporate the master plan into the adopted comprehensive plan, however, the language does not adequately address how "strategies" and "actions" shall be defined for the purposes of determining compliance with "objectives" and "policy" requirements of the statutes and rules. The proposed amendment must clarify that strategies and actions are equivalent to objectives and policies in the Monroe County Comprehensive Plan. [Chapter 380.0552(7)(a), FS Chapter 163.3177(2), FS &9J-5.005(6) and 9J-5.005(2) g, FAC]

Recommendation: Revise Policy 101.20.2 to state that the Big Pine Livable CommuniKeys Plan is hereby incorporated by reference, including the title and date of the document and the date of adoption and further clarify that the Strategies are equivalent to objectives and the action items are equivalent to policies.

Objection 2: Action item 3.1.5 allows employee housing and transfer of ROGO exempt development within Tier 1 in the Institutional Land Use District. This action item is internally inconsistent with Action item 3.1.6 that prohibits the transfer of ROGO exempt units into Tier One. No data has been provided analyzing the potential impact of such action particularly with regard to the Habitat Conservation Plan's ceiling of no more than five percent of the total H within Tier One. [Chapter 380.0552(7)(a) FS, 163.3177(8) FS & 9J-5.005(2), FAC]

Recommendation: Provide data and analysis indicating the potential impact of this action including the amount and location of Institutional Land. Include a map reflecting the location of the Institutional land use designations including the civic organizations, with regard to Tiers. Clarify the inconsistency between the two action items.

Objection 3: Policy 101.5.11 and Strategy item 3.2.1 contemplate a competitive ROGO system based on the Tier overlay map, however, the proposed plan does not adequately define the basis for the map or provide implementation guidelines for the tier overlay. No policies have been adopted that describe what mechanism will be utilized by the local government to respond to requests from land owners to designate a parcel of land from one tier to another tier and additionally does not prohibit the re-designation of tiers. [Chapter 380.0552(7)(b)(c) FS; 9J5.005(2) FAC & Chapter 163.3177(8)FS]

Recommendation: Provide additional data and analysis indicating what process will be utilized to revise tier designations for both developed and vacant land. Adopt policies and criteria describing habitat characteristics of the respective tiers or conversely prohibit the change of tier designations.

Objection 4: The amendment proposes to delete Policy 103.1.1, which currently prohibits development generating 100 trips per day per 1,000 square feet or 25 trips per Jay per 1,000 square feet or 100 trips beyond Big Pine Key. Action Item 4.1.8 prohibits any high intensity use based on trips generated per day, however, the action item fails to define high intensity use or to enumerate the number of trips that are prohibited. The amendment to delete Policy 103.1.1 is not supported by data and analysis to demonstrate that trip length should not be considered as a factor in deer mortality, particularly with regard to development on Big Pine Key that would affect trips from beyond Big Pine Key. Policy 103.1.1 recognized this concern and set a limit on external trips. The proposed amendment would rely solely on intensity, measured by trip generation, to assess mortality rates from specific developments. This fails to consider that two types of development may have the same trip intensity per 1,000 square feet, but could have greatly different trip lengths. For example, a neighborhood center or small store would be assessed 70 trips per 1,000 square feet per day, as would a community shopping center or significant box store. Yet, the neighborhood store would generally attract from a 1-2 mile market area, primarily from Big Pine residents; while the community shopping center would attract from a 3-5 mile maximum area with significant trips from off Big Pine Key. While the NROGO allocations would generally limit the potential for larger scale development, the potential for redevelopment and transfer factors could result in larger scale projects. The amendment does not demonstrate that trip intensity is a more appropriate indicator of mortality risk as compared to vehicle miles traveled (trip generation multiplied by trip length). The amendment is not supported by adequate data and analysis to demonstrate that daily trip generation rates are more appropriate as a measure of mortality risk as compared to peak hour rates, nor does the analysis demonstrate that the trip generation rates adequately consider the variety of land uses that may occur. For example, residential is allocated 9.5 trips per day, which is appropriate for single-family homes, but likely over-estimates multi-family trips. Similarly, a single

standard for retail trips does not consider the wide range of trip rates that occur based on the size or type of retail use. Additionally, no equivalency factor has been established in the proposed amendment for motels, although the HCP recognizes motels as generating 7.9 average trips per day per room and the factor should be included in the LCP. [9J5.005(2) FAC, Chapter 380.0552(7) c, FS & Chapter 163.3177(8)FS]

Recommendation: Provide additional data and analysis to address the issues described above in regard to the factors used to assess mortality risk. Define high trip intensity uses to clarify the types of uses not allowed based on trip factors, including trip generation and trip length. The policy should set a cap on maximum trip generation and trip length and provide examples of prohibited uses based on these factors, such as fast food restaurants, drive through banks, community-scale shopping centers and big box stores, etc.

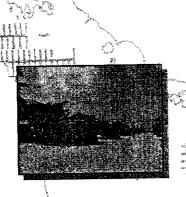
Objection 5: Policy 101.5.12 and Strategy 4.2 allows Commercial mainly along U.S. Hwy. 1 provided that it does not exceed 2,500 square feet unless it is located within the Community Center overlay district, however the comprehensive plan does not include adequate implementation guidelines for the overlay and the overlay has not yet been designated. The use of the word "mainly" is vague and ambiguous. [Chapter 380.0552(7) a, FS, 163.3177(2) FS, & 9J-5.005(2) g FAC]

Recommendation: Adopt implementation guidelines for the overlay and adopt a map that reflects the community center overlay.

# LIVABLE COMMUNIKEYS PROGRAM

# MASTER PLAN FOR FUTURE DEVELOPMENT OF BIG PINE KEY AND NO NAME KEY

# Livable Communikeys Program







Master Plan
for Future Development
of Big Pine Key and No Name Key







Monroe County
Planning and Environmental
Resources Department

August 2004





# Master Plan for Future Development of Big Pine Key and No Name Key

2003-2023

Adopted by the Board of County Commissioners

August 18, 2004

Prepared by:

Monroe County Department of Planning and Environmental Resources

with

Patricia L. McNeese, Environmental Consultant K. Marlene Conaway, Director and Project Leader Robert Will, Planner

# Community Vision

"We envision Big Pine and No Name Key as:

- A rural community with a small town atmosphere and way-of-life where people feel a connection with their friends and neighbors.
- A community rich in natural and scenic resources including endangered habitat found nowhere else in the world.
- A unique community in the Florida Keys where people can live in harmony with the natural world.
- Where residents and visitors can take advantage of the local goods and services without fighting traffic.
- Where kids of all ages have plenty of recreational opportunities.
- Where the dreams of home ownership and planting roots in the community can be realized.
- Where government regulations make sense and work for the betterment of all.
- Above all, we envision a community that responds to the needs of all its inhabitants."

# **Executive Summary**

During the spring and fall of 2000, the residents and property owners of Big Pine and No Name Keys worked with Monroe County planning staff on the Livable CommuniKeys Program (LCP) to identify the needs and desires of the community for future development on Big Pine Key and No Name Key.

Alternative potential development patterns and types were drafted during the process for evaluation to determine any possible impacts to the endangered species which make these islands their home. In order for any new development to occur, including road improvements, a permit from U. S. Fish and Wildlife Service (USFWS) was required. Therefore, the county and state have funded the preparation of a Habitat Conservation Plan (HCP) for the islands.

The HCP is a proposal to mitigate and compensate for the potential negative effects of development activities on the endangered species. The HCP is being reviewed by the USFWS to determine if it meets the species protection criteria.

The HCP is a permit application to allow a limited amount of development to occur as long as the impact on the endangered species is minimized and mitigated and the long term viability of the species is considered. The USFWS interest is in the protection of the endangered species, while the LCP plan provides the framework for development activities.

The LCP Master Plan minimizes impacts from development on the endangered species by directing development to areas of low habitat value and reducing trip length; limiting the amount of proposed development to maintain the rural character and to maximize the amount of habitat protected; and mitigating development by purchasing land for permanent protection.

The proposed LCP Master Plan will classify all land on Big Pine and No Name Keys into three 'tiers' based on conservation and infill priorities. Most of the islands are classified as Tier 1 because of their environmental sensitivity and importance for the continued viability of the endangered species. Tier 2 lands are canal lots located a distance from U.S. 1 with a potential for secondary impacts on the endangered species from traffic. Tier 3 lands are canal lots in close proximity to U.S. 1, which provide little habitat value to the endangered species and because of location, a decreased potential for deer kills from vehicles. Some undeveloped lots in Tier 3 are also located between existing developed commercial lots in the U.S. 1 corridor.

The development activities proposed in the Plan are expected to occur over a 20-year horizon. Proposed activities include:

- Residential units at a rate of roughly 10 per year for a total of 200 units.
- New commercial development, limited to 2,400 square feet a year, around existing commercial areas, mainly along the U.S. 1 corridor.
- New recreational facilities constructed on existing developed or disturbed/scarified lots.
- Limited expansion of community uses, churches, public offices, wastewater facilities, and the existing fire station.
- The widening of local, paved roads to accommodate bicycle paths, and storm water and sanitary sewer infrastructure and a third lane on U.S. 1.

<b>Table of Contents</b>	•
Chapter One:	
Introduction	8
Summary of LCP and HCP Processes	15
Format of Master Plan Elements	19
Chapter Two: Land Use and Redevelopment Element	
Goal 1: Directing Growth	23
Goal 2: Managing Growth	29
Goal 3: Housing	36
Goal 4: Non-Residential Uses	42
Goal 5: Community Organizations	48
Goal 6: Recreational Uses	51
Goal 7: Public Facilities	54
Goal 8: Accessory Uses	58
Goal 9: Land Acquisition	60
Chapter Three: Environmental Protection Element	
Goal 10: Natural Resource Management	65
Goal 11: Freshwater Resource Management	70
Chapter Four: Community Character Element	·
Goal 12: Community Character	73
Goal 13: Historic Resources	77
Chapter Five: Economic Development Element	
Goal 14: Economic Development	80
Chapter Six: Traffic and Transportation Element	
Goal 15: Transportation	84
Chapter Seven: Community Participation Element	
Goal 16: Community Participation	89
Jour 10. Community Landerpation	
Capital Costs Summary	92

	List of Figures	ŀ
Figure 1.1	Map of private, upland, vacant residential parcels.	12
Figure 1.2	Flow chart illustrating master plan process.	21
Figure 2.1	Tier designations on Big Pine and No Name Key.	28
Figure 2.2	FLUM and land use district changes.	35
Figure 2.3	Existing uses and commercial types in the U.S. 1 Corridor.	43
Figure 2.4	Big Pine Key Village Center	46
Figure 2.5	Location of existing institutional uses on Big Pine.	50
Figure 2.6	Location of existing recreational facilities and library.	53
Figure 2.7	Existing government facilities on Big Pine.	55
Figure 2.8	Private, undeveloped land within Tier I and Tier II.	63
Figure 4.1	Conceptual U.S. 1 corridor area map.	74
Figure 6.1	Existing platted residential and major roadways.	87
	List of Tables	
Table 1.1	Updated demographics for Big Pine/No Name from the 2000 Census.	10
Table 2.1	H multiplier for land use development categories.	25
Table 2.2	Calculation of H impact for different development activities.	26
Table 2.3	H-value budget for future development on Big Pine and No Name.	34
Table 2.4	Housing outside single family subdivisions.	36
Table 2.5	Housing figures of Big Pine and No Name from the 2000 Census.	37
Table 2.6	Big Pine Key commercial data.	42
Table 2.7	Institutional uses on Big Pine Key.	48
Table 7.1	Estimated cost of capital improvements	92
Table 7.2	Estimated cost of 3 to 1 mitigation	93

# **Acronyms**

BOCC Monroe County Board of County Commissioners
CARL State of Florida Conservation and Recreational Lands Program

ESA Endangered Species Act

FDCA Florida Department of Community Affairs

FDEP Florida Department of Environmental Protection

FDOT Florida Department of Transportation FKAA Florida Keys Aqueduct Authority FKCCS Florida Keys Carrying Capacity Study

FKERTF Florida Keys Environmental Restoration Trust Fund

FLUM Future Land Use Map

FWS United States Fish and Wildlife Service

HCP Habitat Conservation Plan ITP Incidental Take Permit

LCP Livable CommuniKeys Program NGO non-governmental organization

NROGO Non-residential Rate of Growth Ordinance

PUV private upland vacant parcel PVA population viability analysis

ROGO Residential Rate of Growth Ordinance SFWMD South Florida Water Management District

SMMP Monroe County Stormwater Management Master Plan

SOR State of Florida Save Our Rivers Program

SWMP Monroe County Sanitary Wastewater Master Plan

TDR transferable development rights

TNC The Nature Conservancy

TRE transferable ROGO exemptions

# Introduction

The Livable CommuniKeys Program (LCP) is a community-driven planning effort to address the very specific needs of unique island communities within the Florida Keys. The overall goal is to determine the appropriate amount, type and location of additional development within the LCP planning area. The LCP process includes community participation through a variety of methods. This process generates a community vision and alternative development scenarios. The scenarios are evaluated for feasibility within the current regulatory and physical framework and for how well they fit the community vision. A preferred alternative is identified and a master plan for future development is written around the preferred alternative. A Master Plan contains the specific development layout for the LCP planning area as well as action items that must be implemented to achieve the development and community vision. The Master Plan is a working document that is continually scrutinized and updated by the community.

# Relationship to Comprehensive Plan

The Monroe County Year 2010 Comprehensive Plan was adopted in 1993 and became effective in its entirety in 1997. It contains the guiding goals, objectives and policies for implementation of growth management actions over the 20-year period covering 1990 through 2010. Some of the actions apply equally throughout Monroe County such as the need for adequate solid waste disposal facilities or the allocation of building permits limited by hurricane evacuation clearance times. Other actions, such as the need for preservation of historic resources or the planning of recreational facilities, while applying county-wide, vary in their importance by locale. There are also local needs that are not addressed in the Comprehensive Plan at all such as community goals towards beautification.

The Master Plan does not replace the Comprehensive Plan but focuses on the very specific needs of the local community. It is also a proactive planning tool rather than a strict regulatory document in that it identifies actions needed to meet the community's needs and goals. The Master Plan is attached as an addendum to the Comprehensive Plan. Some existing Comprehensive Plan policies will not be affected at all by the Master Plan. Other existing policies may be modified for consistency or entirely replaced by the Master Plan. The Livable CommuniKeys Program and Master Plan development are outlined in the comprehensive plan in Policy 101.20.1 that states:

"Monroe County shall develop a series of Community Master Plans. Master Plans will be developed in accordance with the following principles:

- 1. Each Community Master Plan will contain a framework for future development and redevelopment including the designation of growth boundaries and future acquisition areas for public spaces and environmental conservation;
- 2. Each Community Master Plan will include an Implementation Strategy composed of action items, an implementation schedule, and a monitoring mechanism to provide accountability to communities;
- 3. Each Community Master Plan will be consistent with existing Federal and State require-

ments and overall goals of the 2010 Comprehensive Plan to ensure legal requirements are met. While consistency with the goals of the 2010 Comprehensive Plan is paramount, the 2010 Plan will be updated and amended where appropriate;

- 4. Each Community Master Plan will be closely coordinated with other community plans and other jurisdictions to ensure development or redevelopment activities will not adversely impact those areas;
- 5. Each Community Master Plan will include appropriate mechanisms allowing citizens continued oversight and involvement in the implementation of their plans. Through the Community Master Plans, programs for ongoing public involvement, outreach, and education will be developed;
- 6. Each Community Master Plan will include a Capital Improvements program to provide certainty that the provision of public facilities will be concurrent with future development;
- 7. Each Community Master Plan will contain an environmental protection element to maintain existing high levels of environmental protection as required in the 2010 Comprehensive Plan;
- 8. Each Community Master Plan will include a community character element that will address the protection and enhancement of existing residential areas and the preservation of community character through site and building guidelines. Design guidelines for public spaces, landscaping, streetscapes, buildings, parking lots, and other areas will be developed through collaborative efforts of citizens, the Planning Department, and design professionals reinforcing the character of the local community context;
- Each Community Master will include an economic development element addressing current and potential diversified economic development strategies including tourism management. The preservation and retention of valued local businesses, existing economies, and the development of economic alternatives will be encouraged through the process;
- 10. Each Community Master Plan will contain a Transportation Element addressing transportation needs and possibilities including circulation, safe and convenient access to goods and services, and transportation alternatives that will be consistent with the overall integrity of the transportation system not resulting in negative consequences for other communities; and
- 11. Each Community Master Plan will be based on knowledge of existing conditions in each community. The Planning Department will compile existing reports, databases, maps, field data, and information from other sources supplemented by community input to document current conditions; and
- 12. Each Community Master Plan will simplify the planning process providing clarity and certainty for citizens, developers, and local officials by providing a transparent framework for a continuing open dialogue with different participants involved in planning issues."

## Relationship to State Legislation

The Comprehensive Plan was required to be adopted by Monroe County under Florida Statute 163 and must be compliant with the required format and minimum content listed in the Florida Administrative Code (FAC 9J-5). The Master Plan will be adopted as a modification of the existing Comprehensive Plan and the Florida Department of Community Affairs will review the modification for compliance with the applicable statutes and codes. This review will likely be most focused in areas where Master Plan policies replace existing Comprehensive Plan policies and serve as the Evaluation and Appraisal Report (EAR) for elements which address this planning area. Of course a comprehensive plan may include elements that are either optional or not listed at all in FAC 9J-5 and that is where the Master Plan is particularly valuable.

# Master Plan for Big Pine and No Name Keys

This Master Plan covers Big Pine Key, No Name Key and the Newfound Harbor Keys, collectively referred to as the "planning area" throughout this document. For purposes of information presentation (such as demographics), the Newfound Harbor Keys are included with Big Pine Key. A companion document to this Master Plan, the "Big Pine Key & No Name Key Development Alternatives Report," (hereafter referred to as the Development Alternatives Report) summarizes the background information for these islands.

# **Demographics**

Some of the demographic information in the Development Alternatives Report was extrapolated from the 1990 census. Table 1.1 below presents some updated data from the 2000 census. The data show that most of the population live north of U.S. 1. Nearly 25% of the permanent household population are in rented units. During the winter season the population increases by nearly 38% to an estimated 6,944. The average persons per household on Big Pine is 2.21 and on No Name it is 2.48.

Table 1.1 Updated demographics for Big Pine/No Na	ame from the 2	000 census.	
	Big Pine	No Name	Combined
Total Permanent Population	5,032	40	5,072
North of U.S. 1	4,458	40	4,498
South of U.S. 1	574	0	574
In Families	1,419	13	1,432
In Owned Housing Unit	3,749	36	3,785
In Rented Housing Unit	1,222	4	1,226
Seasonal Population (i.e., additional)	1,912	23	1,935
Source: U.S. Census 2000			· · · · · · · · · · · · · · · · · · ·

# **Existing Land Conditions**

As natural habitat is acquired by resource agencies for preservation, most of the vacant buildable upland parcels remaining under private ownership are located within improved subdivisions or in commercial acreage near U.S. 1. There are approximately 2,920 vacant building residential lots remaining and approximately thirty-one parcels of vacant private upland commercial land remains covering about 18 acres. The remainder of the planning area is developed (about 12% of the land area), under public ownership (about 72% of the land area) or is located in unbuildable wetlands (under both public and private ownership). Public land owners primarily include the U.S. Fish and Wildlife Service Refuge System, the State of Florida and Monroe County.

Figure 1.1 on the following page shows vacant, upland residential lots under private ownership.

# **Development Context and Constraints**

Listed below for reference purposes are the primary existing constraints on Big Pine Key and No Name Key development. All of these constraints apply county-wide but their particular application to Big Pine Key and No Name Key is discussed here.

- Concurrency Standards: Since March of 1995 the segment of U.S. 1 on Big Pine Key had been operating below the adopted level of service in the Comprehensive Plan. This has been the primary development constraint because it triggered a development moratorium on all new traffic-generating development. In 2002 FDOT completed an intersection improvement project and deer underpasses which improved the level of service to an acceptable level, however further improvements such as adding a third lane to the segment are necessary to permanently raise the operating level of service. This has been a primary motivating factor behind completion of the HCP; the issuance of the incidental take permit will allow necessary road improvements to go forward, thereby lifting this constraint on development.
- ROGO: As of the date of this report, the residential rate of growth ordinance (ROGO) allocates 49 total units (market rate plus affordable) annually to the Lower Keys. This is the latest number in a step down reduction that has occurred since the ROGO started. The reductions have mostly been related to required performance standards set forth in the Comprehensive Plan. It is considered unlikely at this time that the total allocation number will increase at least in the next 3-5 years. Therefore, permits for Big Pine and No Name Key will continue to be limited along with the rest of the Lower Keys under ROGO. The point system used to rank permits for allocations under ROGO is currently structured to give a competitive advantage to units proposed outside Big Pine and No Name Keys. This was done to bolster protection of natural resources on these two islands. With the issuance of the Incidental Take Permit and adoption of the LCP by the county, the ROGO will be restructured.
- NROGO: "NROGO" is the acronym for "Non-residential Rate of Growth Ordinance" under which the construction of new or expanded commercial uses is regulated. The amount of new and expanded commercial space allowed on Big Pine and No Name Keys

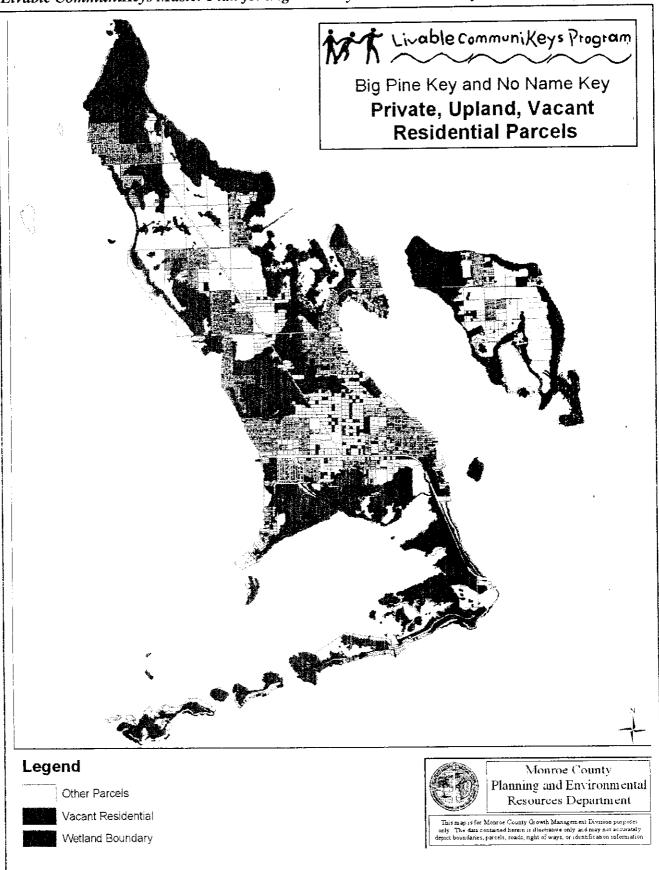


Figure 1.1 Map of Private, Upland Vacant residential parcels.

is tied to the level of residential development permitted as is the case for the entire county. As of the date of this report, the dwelling unit allocation ordinance allocates 49 total units annually to the Lower Keys. At 239 square feet of commercial space per residential unit allocated under NROGO, this sets the approximate Lower Keys commercial rate at 11,711 square feet per year (NROGO does not allocate commercial space by Keys sub-area but does so Keys-wide on an annual basis). As previously noted, the residential allocation is subject to change (usually decreases), so the commercial allocation could also change. The point system used to rank permits for allocations under NROGO is currently structured to give a competitive advantage to development proposed outside Big Pine and No Name Keys. This was done to bolster protection of natural resources on these two islands. With the issuance of the Incidental Take Permit and adoption of the HCP by the county, the point system may be restructured.

- Nutrient Credit System: The Comprehensive Plan requires no net increase in the level of nutrients in wastewater effluent. The number of building permits is tied to the number of cess pits or substandard wastewater treatment replaced by a compliant treatment system. The Monroe County Sanitary Wastewater Master Plan (SWMP) originally projected that this infrastructure would be in place by 2010 to meet Florida law and Comprehensive Plan requirements. Implementation of the SWMP is behind schedule but still well within the 20 year planning horizon of this Master Plan. Once the upgraded sewer service is installed, or all illegal cess pits are eliminated, nutrient level of service standards will be met for all existing and future development.
- <u>Tier System</u>: Monroe County's new Smart Growth Initiatives (Comprehensive Plan Goal 105), "Tier Map," is designed to refocus land acquisition efforts, conserve natural resources and direct future development to infill areas in coordination with the Livable CommuniKeys Program. The Tier System will consist of a set of maps and regulations directing growth to infill of existing subdivisions and commercial areas. The Tier System plays a major role in the implementation of this Master Plan and the HCP.

Additional future constraints on numbers and locations of permits are:

- <u>Habitat Conservation Plan (HCP)</u>: The HCP applies to the Big Pine Key/No Name Key area only, not county-wide. The Incidental Take Permit, when issued, will limit development on Big Pine and No Name Keys to the level that will result in a maximum projected "take" of Key deer over the twenty-year planning horizon. The development levels contained in this Master Plan have been designed to meet the requirements of the anticipated Incidental Take Permit while meeting community needs.
- Florida Keys Carrying Capacity Study (FKCCS): The FKCCS analyzed the extent to
  which current and future projected development exceeds maximum impact thresholds of
  natural resources and infrastructure. The results of the FKCCS will be used to modify
  the ROGO and NROGO at some time in the near future and this may affect the number
  and location of residential permits that can be issued county-wide.

# **Acquisition Framework**

For many years, the concurrent need for natural resource protection and relief to regulated land owners has been present throughout the Keys and particularly heightened for Big Pine and No Name Keys. The United States Fish and Wildlife Service (FWS) has been purchasing property under the refuge system since the National Key Deer Refuge was established in 1959. They can conduct acquisition activities essentially anywhere within the refuge administrative boundaries, which encompass the entire planning area. Their focus in the past has been on natural lands, usually on acreage parcels, that have higher wildlife habitat value. In the early 1990s they produced a priority acquisition plan that focused on remaining habitat and preservation of wildlife movement corridors.

These two islands were included in three ongoing state acquisition efforts in the 1990s: the Conservation and Recreational Lands (CARL) Program, the Florida Forever Program (formerly Preservation 2000) and the Save Our Rivers (SOR) Program. The latter program concentrated on protection of the existing freshwater sloughs and wetlands on Big Pine Key and has been completed. There are lands remaining to be purchased within the CARL boundaries. Also, the CARL boundaries are periodically reviewed at which time new lands may be added. Monroe County has actively prioritized Big Pine and No Name Keys for purchases by the Monroe County Land Authority. Many purchases by private citizens have also been made to garner additional "points" towards an allocation under the county's dwelling unit allocation ordinance (ROGO) and these properties have been deeded over to the county. The HCP and LCP processes will somewhat change and concentrate the focus of future acquisition efforts. Future acquisition and management of vacant lands will be a major component of this Master Plan.

# **Summary of LCP and HCP Processes**

# Livable CommuniKeys

The Livable CommuniKeys Program (LCP) is a community-driven planning effort aimed at determining the amount, type and location of additional development appropriate for the planning area. The Big Pine Key/No Name Key community is the first one in the county to embark upon the LCP planning process. The process was initiated in April 2000. The Development Alternatives Report was generated in March 2001. These interim products of the LCP process were then coordinated with the development of the HCP over the next year and a half. This Master Plan is the result of that coordination.

# Community Input Summary

Three major public workshops and meetings facilitated the LCP effort and were followed up by newsletters mailed to all residents, property owners and interested parties. Stakeholder discussions and citizen surveys were also conducted. The newsletters summarized needs and desires expressed by the community in the workshops. A fourth newsletter was issued in January of 2003 and summarized the development proposals set forth in this plan. From this outreach effort key community issues were identified and a community vision was formulated. The community vision and stated planning objectives were used to evaluate possible development alternatives. This evaluation is contained in the Big Pine Key & No Name Key Development Alternatives Report.

## Key Community Issues

In the LCP workshops the following key community issues were identified:

- 1. Ascertain the distribution of future residential development within the project area.
- 2. Maintain the rural character of the project area while still allowing some future development.
- 3. Implement solutions to the congestion on U.S. 1 and minimize the need for local trips on U.S. 1.
- 4. Develop a community gathering place and/or more active recreation facilities.
- 5. Discourage new development on No Name Key.

#### Planning Objectives

- 1. Minimize the need for local vehicular trips on and across U.S. 1 from north to south.
- 2. Improve the level of service on U.S. 1 to a standard that, in accordance with local regulations, would allow some development and to maintain that level of service over the planning horizon.
- 3. Discourage new development on No Name Key.
- 4. Encourage additional commercial development to be oriented to the local community rather than to the regional or tourist community.
- 5. Continue to allow some new development but generally keep the level low to achieve the maintenance of a "rural community" envisioned by the community.
- 6. Provide for a community gathering center and some active recreation.
- 7. Provide for a conservation plan with reasonable level of implementation costs and logistics.
- 8. Provide for a conservation plan that complies with current regulatory constraints.

- 9. Provide greater certainty to the property owners and Key deer herd managers as to the location of future development.
- 10. Minimize the alteration of undisturbed natural habitat.

# Community Vision

"We envision Big Pine and No Name Key as:

- A rural community with a small town atmosphere and way-of-life where people feel a connection with their friends and neighbors.
- A community rich in natural and scenic resources including endangered habitat found nowhere else in the world.
- A unique community in the Florida Keys where people can live in harmony with the natural world.
- Where residents and visitors can take advantage of the local goods and services without fighting traffic.
- Where kids of all ages have plenty of recreational opportunities.
- Where the dreams of home ownership and planting roots in the community can be realized
- Where government regulations make sense and work for the betterment of all.
- Above all, we envision a community that responds to the needs of all its inhabitants."

#### Alternatives Analysis

Several alternative planning strategies for Big Pine Key and No Name Key were formulated. These strategies were aimed at satisfying basic community needs within the existing regulatory framework. The alternatives were then subjected to a planning analysis to see which ones were consistent with the community vision, addressed the ten planning objectives, could meet community needs and desires, and were within reasonable cost and feasibility. Alternatives for residential, commercial, recreational and transportation development were all evaluated. The analysis is contained in the Big Pine Key & No Name Key Development Alternatives Report, which is a companion document to this Master Plan. Alternatives considered to be the most feasible for fulfillment of community needs and desires included a clustered residential plan and a commercial redevelopment plan. Options for meeting community recreational and transportation needs were also presented. These alternatives were then analyzed for consistency with environmental goals, particularly protection of endangered species. This was done through development of a Habitat Conservation Plan (HCP) for these islands.

#### **Habitat Conservation Plan**

The development of a Habitat Conservation Plan (HCP) for Big Pine and No Name Keys was considered a reasonable way to resolve ongoing conflicts over the impacts of development on natural resources. The Big Pine Key & No Name Key Development Alternatives Report recounts the history of these conflicts and previous failed planning efforts for the islands. Section 10 of the Endangered Species Act (ESA) allows a developer, the "applicant," to apply for a permit for "incidental take" of federally-designated endangered species. The process basically involves determining the level of reduction or "take" of the species caused by the proposed development. The applicant proposes the development along with a plan for mitigating the "take" caused by the development. The mitigation plan is written in the form of a Habitat Conservation Plan.

The HCP process for Big Pine Key and No Name Key was initiated in February 2000. The applicants are Monroe County, the Florida Department of Community Affairs (FDCA) and the Florida Department of Transportation (FDOT). The FDOT is a builder of proposed development within the state road right-of-way (U.S. 1) whereas the remaining two entities have authority over permitting of proposed development in the remainder of the planning area. The Habitat Conservation Plan document was produced with the assistance of an HCP committee made up of concerned agencies and citizen representatives. The document was completed in March 2003 and an application for the Incidental Take Permit was made to the FWS in May 2003. The process to develop the HCP consisted of three major components: 1) study of the endangered species populations and conditions necessary for their continued viability, 2) crafting of a proposed development action within this context and determination of the level of "take" caused by the action, and 3) development of a plan for mitigating the determined level of "take."

### Key Deer PVA Analysis

The HCP was designed to cover all federally-protected species known to occur on the two islands. Of the nine species covered, two were prioritized for analysis based on their sensitivity to development: the Florida Key deer (Odocoileus virginianus clavium) and the Lower Keys marsh rabbit (Sylvilagus palustris hefneri). If the habitat needs of these two species could be met, the needs of the remaining seven would be met automatically. Of the two species, the Lower Keys marsh rabbit is the more endangered, largely due to fragmentation of habitat already having occurred throughout much of its range in the Lower Keys. Protection of existing preferred habitat, mostly wetlands, is less an issue than secondary impacts (e.g., predation by domestic cats) and limitations on dispersal caused by existing development barriers. Additional "take" of this species had to be prevented due to its precarious situation. This was done by proposing a prohibition on development within the core habitat (mostly wetlands) and within buffer zones that surround the core habitat.

The Florida Key deer is a wide-ranging species with a core population located on Big Pine Key and No Name Key. For this species a population viability assessment (PVA) was completed and a model was developed to theoretically predict the response of the population to scenarios involving habitat loss, secondary mortality impacts (e.g. road kills) and major catastrophic events (i.e. hurricanes). One product of this model analysis was an actual map of the islands showing areas necessary for continued viability of the deer population and areas most suited for human development (i.e. least affecting deer viability). This map was used to re-analyze the LCP alternatives and generate a proposed development action. A detailed explanation of the PVA and modeling process is contained in the HCP document.

## Summary of Proposed Action

The proposed development action in the HCP is expressed in terms of the total level of impact that will result in an acceptable level of "take" of the Key deer and no "take" of the Lower Keys Marsh Rabbit. The level of "take" of the Key deer is determined by the removal of habitat value measured in discrete units. The habitat value units are assigned to individual parcels within the planning area and consist of two main components: direct impact (habitat loss) and indirect impact (roadway mortality). Location and traffic generation are the two primary development components causing these impacts. The HCP will equate the total loss of habitat value units to a specific level of acceptable impact. Monroe County will need to track the impact of issued permits to ensure that the total acceptable level of habitat value units is not exceeded. The HCP

will not specify exactly where permits will be issued or for what type of development, but it will provide clear direction to the county on which locations and types will have greater impact. Furthermore, the preferred development alternative, generated by the LCP process and refined through the HCP process, has been analyzed using the PVA model. This process has allowed the county to plan for distribution of potential permits over the maximum available range of types and locations to meet community needs.

# Summary of Habitat Conservation Plan

The Habitat Conservation Plan proposes to mitigate the "take" of Key deer mainly by putting habitat under public protection. Habitat protection is considered the highest priority action for protection of Key deer and other listed animal and plant species. Thus the habitat value units expended by allowing development can be mitigated to some extent by acquiring a certain level of habitat value elsewhere. In addition avoidance and minimization measures were applied at every step in the preparation of the HCP and the LCP to reduce potential impacts from the proposed future development plan. Mitigation will also involve management of the acquired habitat, and other activities. The HCP also proposes actions to minimize development impacts. Examples include implementation of traffic calming designs and restrictions on fencing. The Master Plan provides the details on how these minimization and mitigation actions will be implemented.

# Effect of Issuance of Incidental Take Permit

The application for an Incidental Take Permit under Section 10 of the ESA was submitted in May 2003. Issuance of a permit is expected within two years. It is very important to note that because the HCP process included all concerned agencies and stakeholders, including the FWS in a technical support role, the HCP document as currently proposed is expected to be acceptable to the federal government with a minimal amount of changes. Of course the document must go through the public process and the final content may change. Based on the substantial coordination that has taken place thus far and in consideration of the substantial permit processing time involved, Monroe County is moving forward now with this Master Plan. There are components of the Master Plan that could be changed later, however, to match the final HCP document that accompanies the issued Incidental Take Permit. Both documents have a planning horizon of twenty years that starts upon issuance of the Incidental Take Permit.

# **Format of Master Plan Elements**

There are six elements in this Master Plan. Each one focuses on an issue of heightened importance to Big Pine Key and No Name Key. The format for these elements is different from the comprehensive plan because this Master Plan is a culmination of the LCP process, not a starting point. Therefore, the community and planning staff have already reviewed and analyzed much of the available data about the island and they have been through a planning process whereby "problems" (questions, issues, uncertainties) have been identified and needs have been verbalized. Many of the opportunities and constraints for meeting these needs have also been analyzed through the development alternatives analysis. This information is contained in the Big Pine Key & No Name Key Development Alternatives Report.

The Master Plan seeks to further condense and refine the products of the development alternatives analysis process. The Master Plan provides the tools for problem solving by fulfilling three basic tasks:

- Statement of the goals of the LCP/HCP process as it applies to the planning area,
- Refined analysis of specific community and planning needs to fulfill the goals,
- Identification of strategies to meet the needs.

Goals: Each element states a specific planning goal designed around the major topics to be addressed through the LCP process such as growth and redevelopment, economic viability, environmental protection, and community character. This particular Master Plan also includes goal language designed to address the requirements of the HCP process.

<u>Current Conditions Summary</u>: A certain amount of information specific to the planning area is available and can be presented or cited in the Master Plan now. Some of this information was provided during the LCP process in newsletters and workshops. Demographics, inventories of community facilities, and land ownership patterns are examples of information presented in this section.

Analysis of Community Needs: The problem, issue or shortfall in the community or environment is stated here. These have been identified either by the community or by the planning staff. The community includes the affected public, stakeholders, and elected officials and they have identified needs to the planning staff in a variety of ways: workshop participation, mail surveys, meetings, phone calls, and letters. The planning staff identified additional needs either through planning analysis of existing information, professional judgment based on observations of data or conditions, or coordination with facility or service providers.

<u>Final Strategies and Action Items</u>: As part of the Master Planning process the planning staff has identified and evaluated possible strategies for meeting each need. The possible strategies were also evaluated relative to one another to identify conflicts and to identify opportunities for one strategy to fulfill multiple needs. In this way a final set of strategies was completed. Action items were then developed towards implementation of each strategy.

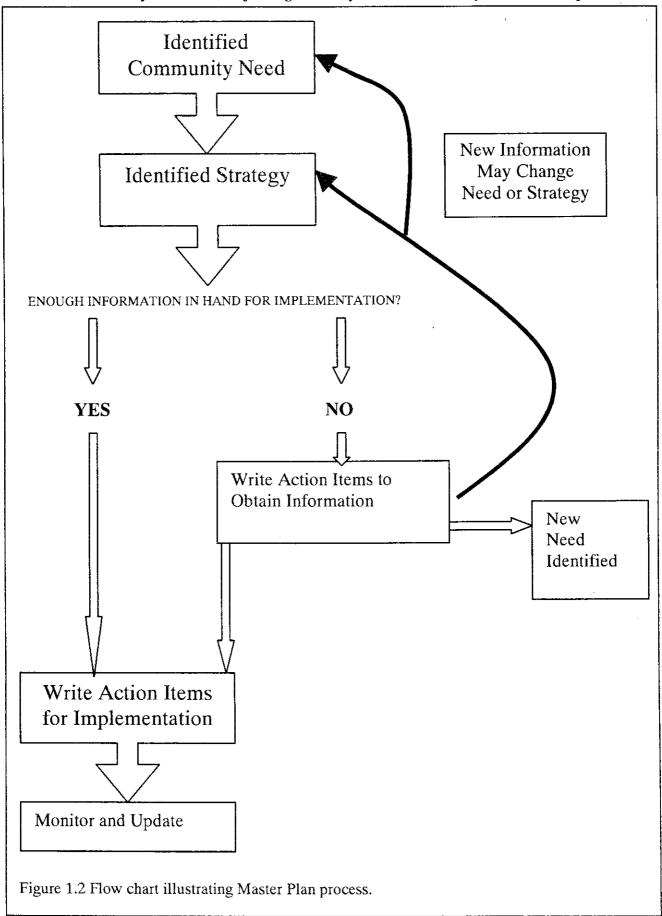
The plan is therefore written in the form of goals, strategies and action items rather than goals, objectives and policies as in the Comprehensive Plan. Where strategies and action items replace current comprehensive plan policies, this is noted and action items for deleting or modifying

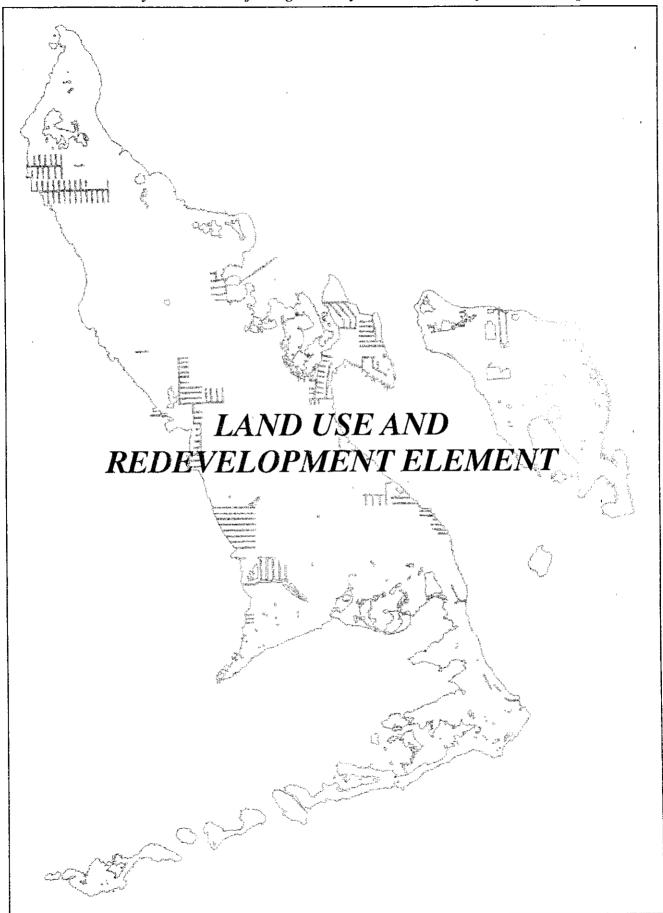
those policies are included in the applicable element. It is very important to note that this plan will be an addendum to the Monroe County Year 2010 Comprehensive Plan. The Comprehensive Plan remains in effect in the Big Pine Key/No Name Key planning area.

The plan format is illustrated in the flow chart in Figure 2.1. The flow chart starts with an individual need identified in the plan. A comprehensive strategy for meeting the need is formulated based on the information in hand. If the information in hand is sufficient to implement the strategy the action items for implementation can be written directly into the Master Plan. If not, an action item can be written to procure new information or further analyze existing information. Note that new information not only feeds back into implementation but may reveal new strategies, may redefine the need or may even reveal new needs. To be a meaningful and current implementation tool over the entire twenty-year planning horizon the Master Plan must include this iterative process of problem solving that monitors success and identifies changing conditions and new issues. It must also allow for timely response and tracking of progress towards problem solving.

Using this format the Master Plan moves the LCP/HCP process into its final phase by taking the following steps:

- 1. Adopt as the plan framework, the preferred land use scenario developed during the LCP/HCP process providing the basis for the anticipated incidental take permit.
- 2. Develop and refine the implementation details of the preferred land use scenario.
- 3. Include mechanisms for ensuring that the Master Plan complies with the anticipated incidental take permit through the twenty-year planning horizon.
- 4. Include mechanisms and revisions for ensuring that the Master Plan complies with the Monroe County Year 2010 Comprehensive Plan.
- 5. Address new issues relevant to the planning area that were not addressed in either of the aforementioned processes (Comprehensive Plan and HCP) and that have no impact or a positive impact on the ability to comply with those two processes.





# GOAL 1

Direct future growth to lands that are intrinsically most suitable for development and encourage conservation and protection of environmentally sensitive lands by using the relative wildlife habitat value of land as a basis for development decisions on Big Pine Key and No Name Key.

# **Current Conditions Summary**

The Habitat Conservation Plan as implemented under the anticipated Incidental Take Permit (ITP) will create a direct link between wildlife habitat conservation and land development for the next twenty years. The direct link mechanism is the Harvest (measured in H-units) of individual parcels within the planning area. The HCP document explains how the H-unit was developed based upon the Population Viability Analysis (PVA) of the Key deer. The PVA revealed that both "harvest" (mortality) and the deer carrying capacity of the habitat (known as "K") affect the population viability of the deer. The model further revealed that when a parcel is developed, the corresponding increase in harvest potential (additional traffic mortality) is a much better indicator than the corresponding removal of habitat as to the projected viability of the deer population over the 100-year PVA horizon. In fact, harvest turned out to be a very good indicator of development impacts when multiple development scenarios were processed through the PVA model. Therefore, the weighted Harvest Grid Map generated from the PVA will be used to predict the projected levels of take of endangered species for various development scenarios. Monroe County applied this map towards the planning of future development for the next twenty years through the LCP process.

A mechanism for translating the Harvest Grid Map into a land use regulatory tool exists under the county's Smart Growth Initiative, otherwise known as the Tier System. Policy 105.2.1 defines the Tier System categories in detail. The three Tier categories are based on environmental protection and future land use planning priorities. Tier I lands are termed "Natural Area," Tier II lands are called "Transition and Sprawl Reduction Area" and Tier III lands are the "Infill Area." For Big Pine Key and No Name Key the habitat sensitivity information presented in the HCP can be used directly to define the environmental protection priorities incorporated into their Tier Map coverages. Planning priorities set during the LCP/HCP process can be used to refine the map where needed.

The same spatial model of the PVA that generates the Harvest Grid Map allows calculation of H-unit by individual parcel using a summing method applied to the grids contained within the parcel. Therefore, Monroe County will use this calculation to project the level of impact of each individual development proposal on endangered species and, ultimately, on ITP/HCP-compliance. The anticipated Incidental Take Permit will authorize a total take of approximately

78 female Key deer (PVA-model based number) and no take of the Lower Keys Marsh Rabbit in the twenty-year period covered by the permit. This is expressed in terms of development within the HCP as a total allowable H of 1.1 units. Furthermore, the anticipated ITP will require mitigation through the acquisition and protection of at least 3.3 total H units (mitigation ratio of 3 to 1). The projected amount of development that could be accommodated by 1.1 units of H was estimated as the equivalent of approximately 600 residential units. This was done by running the PVA model through several scenarios in which the least valuable habitat was always developed first. The scenarios used equivalent units that were characterized as single family residential units within subdivisions. A method was needed for the direct translation of equivalent units into all types of land uses anticipated by the LCP process such as commercial, public facilities, and roadways. The HCP does this by supplying a multiplier for those uses generating additional traffic (translating to harvest impact) beyond that generated by a single family residential unit.

# **Analysis of Community Needs**

Tier Map

The Tier Map for Big Pine Key and No Name Key has been developed based on relative wildlife habitat quality as defined in the HCP. Monroe County is in the process of developing the Tier Maps pursuant to county-wide Smart Growth Initiatives adopted in Goal 105 of the Comprehensive Plan. For the Big Pine Key and No Name Key planning area the Tier Maps are based upon habitat sensitivity identified in the HCP, primarily as represented on the weighted Harvest Grid Map.

H unit Tracking System

Pursuant to the anticipated ITP and the HCP, the H-Value of all parcels developed and parcels acquired for the purpose of mitigating endangered species take will need to be continuously compiled and monitored. A system for tracking the H for each parcel developed, and how much H is in the mitigation bank must be created and monitored. An annual report will be presented detailing this information.

# **Recommended Strategies and Actions**

Strategy 1.1

Create a Tier Map for the planning area depicting the locations of Tier I, Tier II and Tier III lands as described in Comprehensive Plan Policy 105.2.1. Base the Tier Map on the habitat needs of federally endangered resident species in the planning area as set forth in the anticipated ITP and HCP in terms of relative H of parcels within the planning area.

Strategy 1.2

Assign relative H units to all parcels within the planning area as per the method described in the HCP in order to ensure compliance with the permitted level of take of federally endangered species contained in the anticipated ITP.

Action Item 1.2.1: Use the parcel-specific H unit spreadsheet included with the HCP to assign H to individual parcels within the planning area.

Action Item 1.2.2: For development proposal applications involving multiple parcels, sum the H units for the individual parcels to generate the total H impact of the development.

Action Item 1.2.3: Devise a trip generation equivalency system to account for the difference in harvest impact between non-residential and residential uses in accordance with HCP requirements. Use the revised version of HCP Table shown below in Table 2.1. This revision provides more detail regarding the uses that are anticipated in this Master Plan.

Land Use	Average Daily Trip Generation <sup>2</sup>	H Multiplier 1
Residential (any type)	9.5	1
Accessory Uses <sup>3</sup> (on vacant parcels)		0.2
(includes neighborhood pocket parks)		
Retail and Service	70.0	7.4 (per 1,000 sq. ft.)
Office – government or private	5.9	0.6 (per 1,000 sq. ft.)
Institutional (includes community and religious organizations)	13.0	1.4 (per 1,000 sq. ft.)
Industrial (includes public utilities)	5.0	0.5 (per 1,000 sq. ft.)
Recreational (major parks) and Library	67	7.0
Hotel/Motel	7.9	0.8 per room

<sup>&</sup>lt;sup>1</sup> The multiplier is based on traffic generation because vehicle collisions with Key deer is the most important human-related cause of mortality for the Key deer.

Action Item 1.2.4: Use the formulas in Table 2.2 of this Plan, (Table 2.6 of the HCP) to determine the H impact of development permitted after March 15, 1995.

Strategy 1.3

Prepare a public acquisition strategy to acquire parcels with the highest H first because of their relative habitat value, to maximize mitigation potential and ensure compliance with the anticipated ITP/HCP.

Action Item 1.3.1: Prioritize the purchase of Tier I lands over Tier II and Tier III lands in order to achieve the highest possible level of H protection and to ensure compliance with the anticipated ITP mitigation requirements. Within Tier I, Florida Key deer movement corridors, as depicted in the HCP document shall be further prioritized for acquisition.

Action Item 1.3.2: Consider the following acquisition mechanisms applied within the planning area as eligible to be counted for the purpose of providing H unit equivalent mitigation:

<sup>&</sup>lt;sup>2</sup> Average daily trips generation was estimated from the Institute of Traffic Engineers Manual; daily trip generation by land use has not been verified for the Florida Keys.

<sup>&</sup>lt;sup>3</sup> Fences and auxiliary uses, as defined in the Monroe County Land Development Regulations, are assumed to cause no additional traffic impacts; they were assumed to cause habitat loss (change in K), which has a lesser effect on the matrix model than changes in H.

	Table 2.2 Calcul	Calculation of H impact for different development activities.	ivities.
a los de la conse	Pit di	H Calculation	Description
Undeveloped	8 <b>8</b> .53	$H_{impact} = H_{parcel}$	Construction on vacant parcels incurs a new impact, both as loss of habitat and as causing secondary effects.
	Non-residential construction	$H_{impact} = H_{parcel}^{*} \# development units^{*} M_{land usc}^{*}$	For non-residential land uses, the total impact is a function of both the amount and type of development. The number of development units refers to the square footage of new development divided by 1,000.
	Accessory use	$ m H_{impact}=H_{parcel}^{}*0.2$	Accessory uses only cause loss of open habitat (reduction in K); the effect of K on the model is 0.2 times the effect of H.
	Open space (passive parks)	$H_{inpact} = (H_{parcel} * 0.2) * M_{recreation}$	Parcels will be revegetated with native vegeta- tion, thus improving habitat value. Recreation use will increase secondary impacts.
Developed	Expansion	$H_{ m impoct} = H_{ m parcel}^{-*} \left( { m Sq.fl.}_{ m expansion} / H_{ m parcel}  ight)^* M_{ m land}$ use	In developed parcels, expansion causes an increase on the footprint of development; impact is a function of the additional footprint and the type of land use.
	Redevelopment (different use)	$ \begin{aligned} H_{impact} &= H_{parcel} * \{[M^*(sq.ft{dev}/sq.ft{parcel})]_{new} - \\ [M^*(sq.ft{dev}/sq.ft{parcel})]_{old} \} \end{aligned} $	The impact is the difference between the effect of the new footprint/land use and the old footprint/land use.
	Accessory use	$H_{ ext{impact}} = H_{ ext{parcel}} * 0.2$	Accessory uses only cause loss of open habitat (reduction in K); the effect of K on the model is 0.2 times the effect of H.
-	If parcel is already fenced	H <sub>parcel</sub> is multiplied by 0.8; otherwise the equations above remain unaltered.	The H grid was built without field verification of fencing.
Roads	Paving (dirt roads)	$H_{\text{impact}} = 0.03720 * length of paving (in miles)$	Calculation is based on the estimated H of one mile of paved road ( $H = 0.0372$ )
	Widening (paved roads; including U.S 1)	H <sub>intract</sub> = 0.03720 * (additional width/existing width) * length (in miles)	
Source: Habitat Conserv	Source: Habitat Conservation Plan for Florida Key Deer		

- 1. Outright purchases by Monroe County for conservation purpose using county funds, state funds, grants or other outside funding sources, whether or not the property is later donated to the federal government for conservation purpose or transferred/sold to the State of Florida for conservation purpose.
- 2. Properties purchased for the purpose of conservation by the State of Florida which do not specifically prohibit use of the funds for mitigation purposes.
- 3. Lots dedicated to Monroe County to achieve points for the ROGO eligibility.

Strategy 1.4

Compile the H units of parcels permitted for development as permits are issued in order to allow continuous determination of the individual and cumulative H units of developed parcels. At the same time, continuously compile the H units of conservation parcels acquired for the purpose of mitigating H units developed.

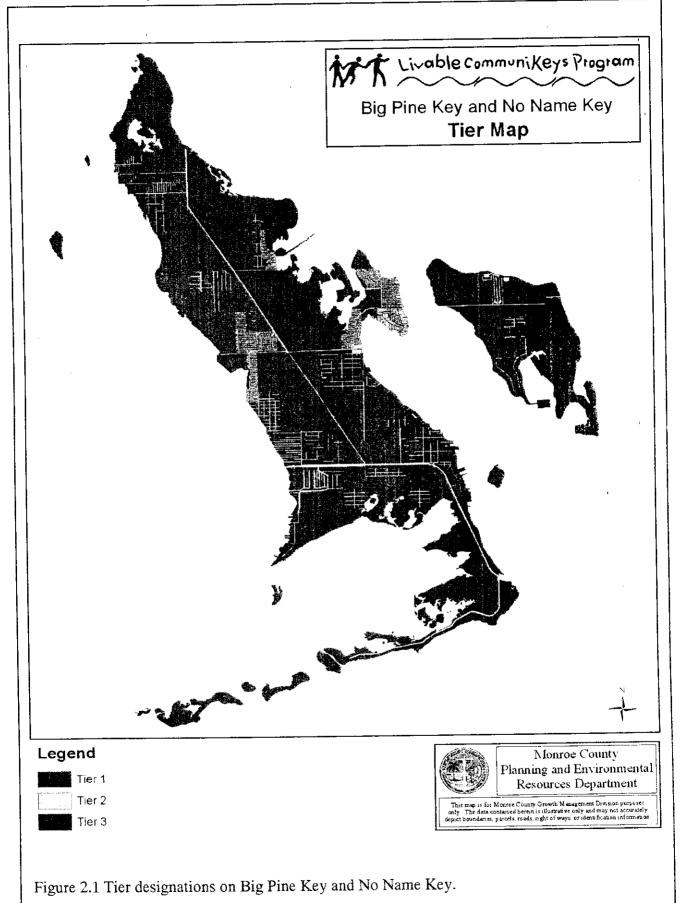
Strategy 1.5

Evaluate and demonstrate compliance with the total allowable H under the ITP/HCP through annual reporting of H units developed and H units acquired.

Action Item 1.5.1: Based on the annual report, evaluate whether there continues to be a steady and available rate of H units for meeting community needs throughout the twentyyear planning horizon.

Action Item 1.5.2: Based on the annual report, evaluate whether the acquisition strategy ensures a steady and available rate of H units for mitigation (through identification of future acquisition areas) throughout the twenty-year planning horizon.

Action Item 1.5.3: Based on the annual report, evaluate whether the program ensures that H units protected through acquisition substantially mitigates H units lost through development.



# GOAL 2

Manage future growth for the next twenty years on Big Pine Key and No Name Key consistent with the community vision, while minimizing impacts on the endangered species and maintaining the existing biodiversity.

# **Current Conditions Summary**

The primary mechanisms for implementation of the Tier System are the permit allocation system and land acquisition. These two programs are already in place and need merely to be revised to implement the HCP and this Master Plan. Tiers I and II minimize development impact on natural resources and sparsely settled areas. Tier III encourages development in disturbed areas already heavily settled. It is envisioned that future development patterns will be accomplished through the application of minimum eligibility requirements for competing in the permit allocation system. Tier III applicants will be immediately eligible to compete whereas Tier I and Tier III applicants will be required to amass points via land preservation prior to being eligible for entry into the system. In this way, the competition aspect of the allocation system is preserved while the subjective evaluation of point awards (a growing problem since the system was first implemented) is eliminated. The land acquisition program, the second implementation mechanism of the Tier System, will be reviewed and revised to prioritize parcel acquisition according to Tier category.

As described in Goal 1, the distribution of future development within the planning area will be based directly on the H units of the land to achieve minimization and avoidance of impacts. The Tier category coverages were developed following this same format of habitat sensitivity information presented in the HCP, primarily as depicted on the Harvest Grid Map. Much of this information was available and was brought into the LCP process during development of the preferred land use alternative.

Land use alternatives developed in the LCP were organized by land use category according to the primary focus area identified by the community: residential, commercial, recreational/community facilities, and transportation. The alternatives analysis is presented in the Big Pine Key & No Name Key Development Alternatives Report. The alternatives considered most feasible (preferred) for the first three land use categories are identified in that report as:

- Residential Clustered,
- Commercial Redevelopment, and,
- New Community Facilities and Scattered Community Facilities (two alternatives were combined).

The transportation alternatives were further analyzed and preferred alternatives were later identified to be:

- Three-laning of U.S. 1 on Big Pine Key, and,
- Cross-island road for local traffic.

The basic desired rate of development was also set during the LCP process for the twenty-year planning horizon:

- 200 residential units, and,
- 47,800 square feet of additional commercial floor area (to correspond with residential). The conceptual maps of the above alternatives (and all other alternatives considered) are contained in Appendix 5 of the Big Pine Key & No Name Key Development Alternatives Report.

The preferred alternatives were combined and refined into a single preferred land use alternative to which were added plans for expansion of institutional uses and planned public facilities. During development of the HCP this preferred alternative was further refined to form a specific land use plan for Big Pine and No Name Keys. This is the plan for which the proposed levels of take of federally-protected endangered species was determined through PVA modeling. Therefore, implementation of this specific plan will comply with the anticipated Incidental Take Permit. The plan components are as follows:

- Residential Up to 200 new units over the next twenty years.
- Commercial Up to 47,800 square feet of commercial floor area over the next twenty years in the U.S. 1 Corridor Area (south of Lytton's Way) to be used for infill and expansion of existing businesses. Development is limited to Tier III disturbed and scarified uplands. Total trip generation over the twenty-year horizon is limited to the equivalent of 200 residential units.
- Major Recreational/Community Facilities One major recreational and community center facility to be located at the county-owned "Mariner's Resort" site in southeastern Big Pine Key; Three additional public parks to be located on disturbed uplands; Expansion of the existing public library by up to 5,000 square feet.
- Minor (Neighborhood) Recreational Up to seven neighborhood "pocket parks" on disturbed or scarified sites in any of the following subdivisions:

Pine Channel Estates

Palm Villa

Port Pine Heights

Cahill Pines and Palms

Sands

Doctor's Arm

Eden Pines Colony

- Community Organizations Allow for expansion of existing community organizations such as religious institutions and civic clubs on scarified land already owned by them on the date of the issuance of the Incidental Take Permit.
- Public Facilities To include the following public facilities needs anticipated over the next twenty years, all of which are to be restricted to disturbed and/or scarified areas:
  - 1. Sewage treatment needs outlined in the Monroe County Sanitary Wastewater Master Plan (SWMP), including facilities for collection and treatment,
  - 2. Stormwater treatment needs outlined in the Monroe County Stormwater Management Master Plan (SMMP) including facilities for collection and treatment,
  - 3. Public office space to be located in the U.S. 1 Corridor Area, and